

ABSTRACT

An image is processed by detecting pixel-to-pixel variations in brightness level, generating high spatial frequency information related to the variations, setting interpolation points with a spacing that varies according to the high spatial frequency information, and generating new pixels by interpolation at the interpolation points. By increasing the zoom ratio in one part and reducing the zoom in another part of each edge in a continuous manner, this method can mitigate edge degradation when an image is enlarged or reduced, without introducing discontinuities or other image artifacts. It also provides a convenient way to adjust edge sharpness in an image.